



Good Sea Food - What is it?

Dr. Cornelia E Nauen

Mundus maris

Sciences and Arts for Sustainability asbl

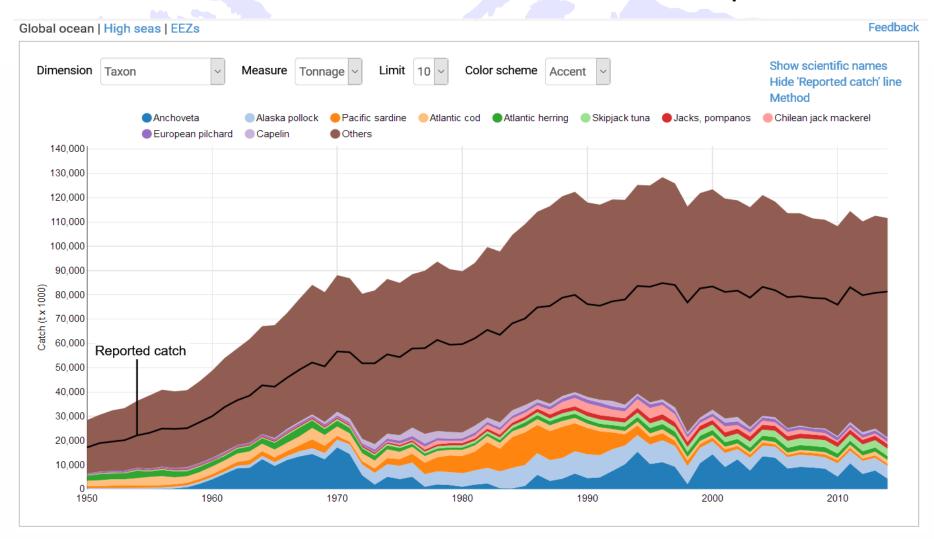
What do we want to explore together?

Slow Fish principles: good, clean, fair Mundus maris adds: sustainable

- Where does your fish come from?
- Is it fresh and safe?
- A trip from the ocean to your plate. Figuring out how your fish is caught, processed and marketed before it reaches you.
- Exploring how to chose the best quality
- What you want to know to eat healthy and sustainable fish and seafood

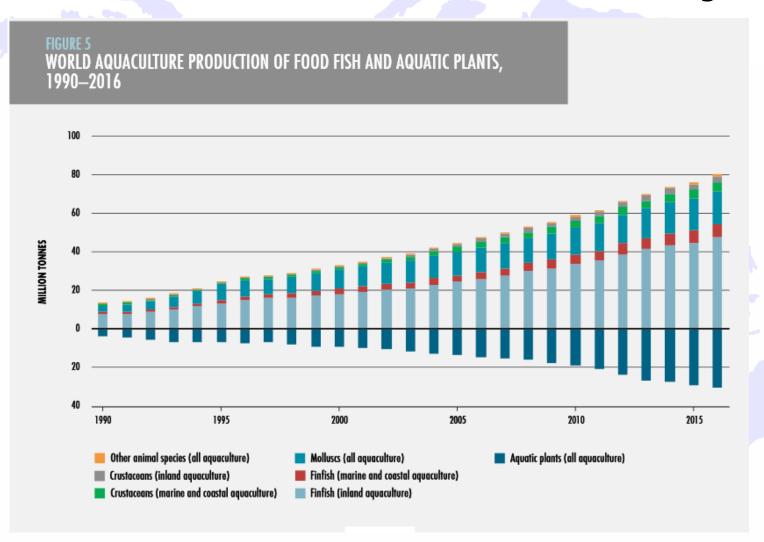
A few facts and figures (1)

Where does the fish come from? - Global capture SAUP



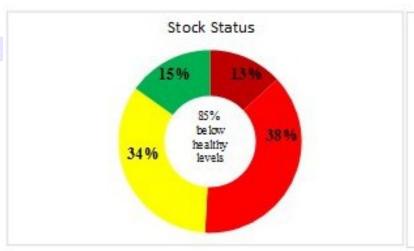
A few facts and figures (2)

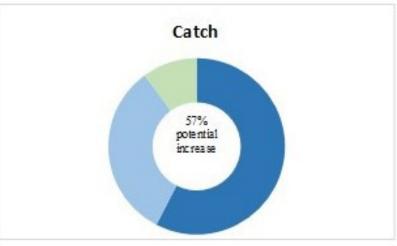
Where does the fish come from? - Latest FAO figures



A few facts and figures (3)

What about Europe? 5 mio t + possible, 6 mio t import





- 52 Severely depleted
- 150 Outside safe limits
- 135 Below healthy levels
 - 60 Above healthy levels
- 397 Sum of stocks analysed

Analysis of current and potential catches for 397 stocks in European Seas.

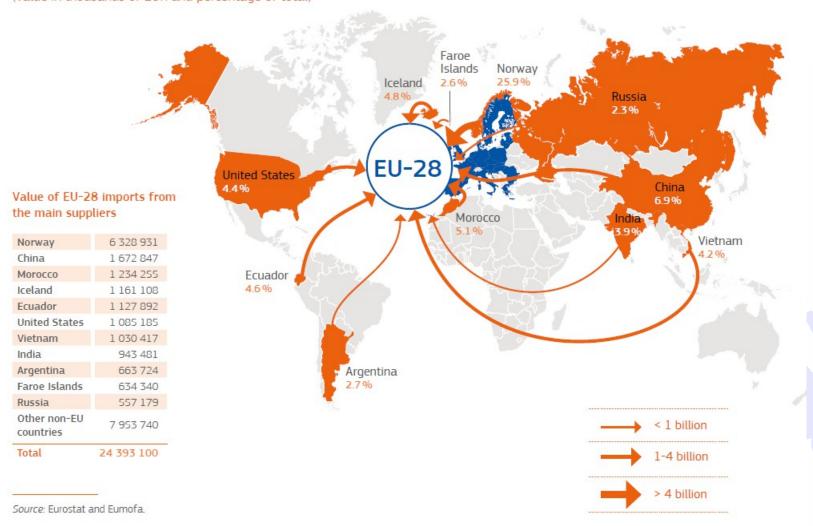
Because of trophic interactions, all stocks cannot support maximum yields simultaneously. 90% of MSY should therefore be the target.

Figure illustrating the current stock status of 397 stocks in European seas and potential for increase following recovery

A few facts and figures (4)

Trade of fisheries and aquaculture products between the European Union and non-EU countries – Main suppliers (2016)

(value in thousands of EUR and percentage of total)



A few facts and figures (5)

What about Belgium? 2015 production, size: min, max

	European Plaice (<i>Pleuronectes platessa</i>) L _{m30.8} , range 24 - 42 cm – max 100.0 cm	7,770 tons
	Common Sole (Solea solea) L _m ca. 30.3 cm – max 70.0 cm SL, common 35	3.077 tons
	Atlantic Cod (<i>Gadus morhua</i>) L _{n63.4} , 31 - 74 cm – max 200 cm, common 100 cm	1.434 tons
THE CORP IS	Anglerfishes (<i>Lophius piscatorius</i> & L, spp.) L _m 35 - 60 cm – max. 200 cm	1.104 tons

Freshness and Safety

Slow Fish principles

Good: fresh, delicious, seasonal – satisfying the senses and connected to our culture & identity

Clean: produced using methods that respect the environment and human health

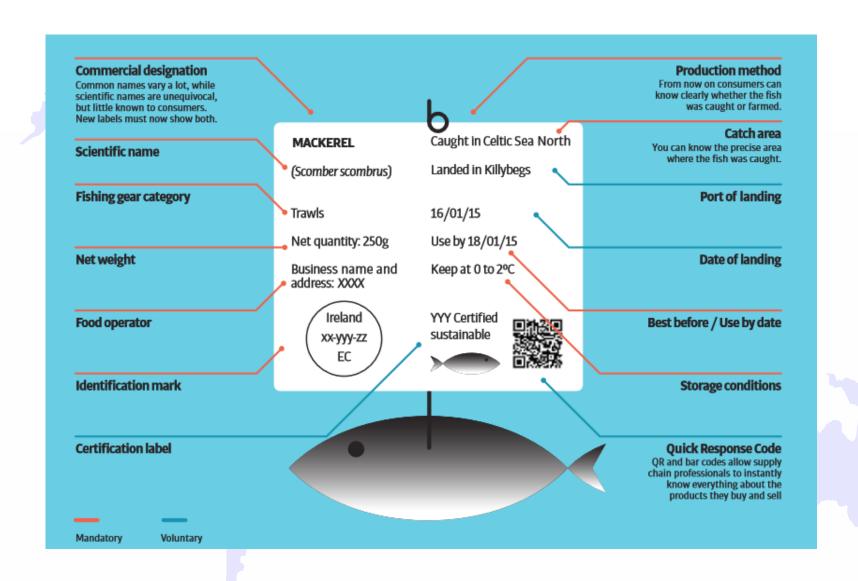
Fair: accessible price for consumers, but also fair earnings and decent living and working conditions for small-scale producers and workers

Sustainability

Mundus maris asbl puts additional emphasis on sustainability to address declining global catches from overfishing, widespread wasteful practices and CC

- No IUU fishing: illegal, unreported and unregulated (IUU) fishing is often associated with organised crime (fiscal fraud, corruption, forced labour, even drugs and arms running etc.)
- Low impact fishing: production methods that minimise environmental damage, accidental catches and other waste
- Recovery and protection of healthy marine ecosystems & maritime cultures, MPAs, benefit sharing

EU labelling for consumer protection



Fishing techniques



How to check freshness?

Whole fish

- No or very light sent no smell of ammonia
- Eyes clear and "bulging"
- · Gills bright red or pink, no slime

Body firm (touch, if possible, should not leave

mark), wet and slippery

Fillet or cut piece

- No smell
- Fresh cut marks
- Firm, humid, shiny



How to check sustainability?

Whole fish

- Local species or species from trusted producer
- Bigger than size at first maturity
- Labelling showing low impact fishing method
- Assurance by vendor that no forced labour was involved in the production and distribution chain

Fillet or cut piece

- As above
- Myomeres (segments of fish meat) wide enough for the specimen to have reached maturity



Why is caution needed?

- An OCEANA investigation into the reliability of Brussels seafood declaration produced evidence of widespread fraud.
- The Catholic University of Leuven analysed >280 samples from restaurants, sushi bars and canteens in European

institutions (DNA fingerprinting)

- About every third fish was not what it was declared to be!
 Published in 2015
- https://eu.oceana.org/en/node/49996

Some ground truthing in Brussels

Visits / conversations with

- retailers (fish shops, market stands)
- supermarkets
- wholesalers
- restaurants
- Federal Agency for Consumer Protection
- European Commission

Checked against biological data in fishbase.org and www.sealifebase.org

Some retailers in Brussels

Visits / conversations

- Hygiene and cool chain respected high awareness
- Sustainability iffy one particularly paradoxical visit in fish shop with great attention to cleanliness etc. but mostly undersized fish – here Cod length at maturity
 - 68 cm, in the shop (see pic) really small cod, less so for red mullets with length at maturity from 11 cm
- Why undersized? It's cheap, after collapse we have aquaculture – really???

More retailers in Brussels

Visits / conversations

We want to offer quality and sustainability from the sea to the plate (Poissonnerie des Tongres)

Only fished with handlines (at least ≠ trawl) in France

Only mature size (see here Red mullet: maturity range

16-24 cm, max length 40 cm)

- Conditioning of fish to high standard after capture
- Max attention to cool chain
- Freshness 1-2 days after capture
- Price level to go with that care

Supermarkets in Brussels

Visits / no conversations

- Labelling including scientific name (unique), not only vernacular or commercial name in up to 3 languages (variable), but not always indication of fishing area and gear
- Much convenient portionfish for single person households, not easy to check whether mature or not
- Much use of styrofoam and plastic
- Medium-priced industrial products



Others

Wholesaler and restaurant speak for themselves Federal Agency for Safety of the Food Chain (AFSCA)

- Responsible for assurance of hygiene standards and labelling, among other assignments
- While EU labelling directives are applicable law in BE, interpretation leaves leeway for partial implementation
- Retail controls are infrequent (perhaps only 1x3 years)
- Not responsible for fraudulent declarations (e.g. selling fish under wrong names for achieving higher price (fraud)). That is the responsibility of SPF économie
- European Commission provides info and brochures to support enforcement of legislation, CFP

Open sources of scientific information

www.fishbase.org – all you want to know about the 34,000 species of fish described by science (e.g. name, distribution, length at first maturity, max. length, food)

www.sealifebase.org – all you want to know about marine life other than fish (under cont. development)

www.seaaroundus.org - provides info about human extractions from the ocean reconstructed by hundreds of independent scientists

www.frontiersin.org – Frontiers in Marine Science – family of open access journals publishing leading research in all spheres of marine science

http://www.fao.org/state-of-fisheries-aquaculture

The spirit of our work

Invest in people, connect to the Ocean, build bridges between the global agenda & local work and experience



https://www.mundusmaris.org/index.php/en

How can you engage?

- Ask for labelling in line with the EU Directive
- Ask for fishing method
- Ask for confirmation that the restaurant is sure that their souring is legitimate and trustworthy
- Check minimum size use seafood guides
- Check the freshness criteria
- Support responsible companies and civil society organisations working for good, fair, sustainable seafood



Can think of more?



Thanks for your attention

Support our work with a donation of time / money!

More info on

www.mundusmaris.org

info@mundusmaris.org